

APPENDIX I

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APPENDIX II

UNITS OF MEASUREMENT CHARTS

U. S. CUSTOMARY AND METRIC SYSTEM UNITS OF MEASUREMENTS

THESE PREFIXES MAY BE APPLIED
TO ALL SI UNITS

MULTIPLES AND SUBMULTIPLES

| | Prefixes | Symbols |
|--|-----------------------|-----------|
| 1 000 000 000 000 = 10^{12} | tera (těř'á) | T |
| 1 000 000 000 = 10^9 | giga (jǐ'gá) | G |
| 1 000 000 = 10^6 | mega (měg'á) | M* |
| 1 000 = 10^3 | kilo (kǐl'ô) | k* |
| 100 = 10^2 | hecto (hěk'tô) | h |
| 10 = 10^1 | deka (děk'á) | da |
| 0.1 = 10^{-1} | deci (dēs'ǐ) | d |
| 0.01 = 10^{-2} | centi (sěn'tǐ) | c* |
| 0.001 = 10^{-3} | milli (mǐl'ǐ) | m* |
| 0.000 001 = 10^{-6} | micro (mǐ'krô) | μ* |
| 0.000 000 001 = 10^{-9} | nano (năn'ô) | n |
| 0.000 000 000 001 = 10^{-12} | pico (pē'kô) | p |
| 0.000 000 000 000 001 = 10^{-15} | femto (fěm'tô) | f |
| 0.000 000 000 000 000 001 = 10^{-18} | atto (ăt'tô) | a |

* MOST COMMONLY USED

ENGLISH AND METRIC SYSTEM UNITS OF MEASUREMENT

COMMON EQUIVALENTS AND CONVERSIONS

Approximate Common Equivalents

Conversions Accurate to Parts Per Million (units stated in abbreviated form)

Number × Factor

| | | | |
|----------------------------------|---------------------------------------|--------------------------------|----------------------|
| 1 inch | = 25 millimeters | in × 25.4 | = mm |
| 1 foot | = 0.3 meter | ft × 0.3048* | = m |
| 1 yard | = 0.9 meter | yd × 0.9144* | = m |
| 1 mile ** | = 1.6 kilometers | mi × 1.60934 | = km |
| 1 square inch | = 6.5 square centimeters | in ² × 6.4516* | = cm ² |
| 1 square foot | = 0.09 square meter | ft ² × 0.0929030 | = m ² |
| 1 square yard | = 0.8 square meter | yd ² × 0.836127 | = m ² |
| 1 acre | = 0.4 hectare | acres × 0.404686 | = ha |
| 1 cubic inch | = 16 cubic centimeters | in ³ × 16.3871 | = cm ³ |
| 1 cubic foot | = 0.03 cubic meter | ft ³ × 0.0283168 | = m ³ |
| 1 cubic yard | = 0.8 cubic meter | yd ³ × 0.764555 | = m ³ |
| 1 quart (lq.) | = 1 liter | qt (lq.) × 0.946353 | = l |
| 1 gallon | = 0.004 cubic meter | gal × 0.00378541 | = m ³ |
| 1 ounce (avdp) | = 28 grams | oz (avdp) × 28.3495 | = g |
| 1 pound (avdp) | = 0.45 kilogram | lb (avdp) × 0.453592 | = kg |
| 1 horsepower | = 0.75 kilowatt | hp × 0.745700 | = kW |
| 1 pound per square inch | = 0.07 kilogram per square centimeter | psi × 0.0703224 | = kg/cm ² |
| 1 millimeter | = 0.04 inch | mm × 0.0393701 | = in |
| 1 meter | = 3.3 feet | m × 3.28084 | = ft |
| 1 meter | = 1.1 yards | m × 1.09361 | = yd |
| 1 kilometer | = 0.6 mile | km × 0.621371 | = mi |
| 1 square centimeter | = 0.16 square inch | cm ² × 0.155000 | = in ² |
| 1 square meter | = 11 square feet | m ² × 10.7639 | = ft ² |
| 1 square meter | = 1.2 square yards | m ² × 1.19599 | = yd ² |
| 1 hectare | = 2.5 acres | ha × 2.47105 | = acres |
| 1 cubic centimeter | = 0.06 cubic inch | cm ³ × 0.0610237 | = in ³ |
| 1 cubic meter | = 35 cubic feet | m ³ × 35.3147 | = ft ³ |
| 1 cubic meter | = 1.3 cubic yards | m ³ × 1.30795 | = yd ³ |
| 1 liter | = 1 quart (lq.) | l × 1.05669 | = qt (lq.) |
| 1 cubic meter | = 250 gallons | m ³ × 264.172 | = gal |
| 1 gram | = 0.035 ounces (avdp) | g × 0.0352740 | = oz (avdp) |
| 1 kilogram | = 2.2 pounds (avdp) | kg × 2.20462 | = lb (avdp) |
| 1 kilowatt | = 1.3 horsepower | kW × 1.34102 | = hp |
| 1 kilogram per square centimeter | = 14.2 pounds per square inch | kg/cm ² × 14.223226 | = psi |

**nautical mile = 1.852 kilometers

*exact

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